

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/03/2008 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al. ("Itoh", United States Patent Application Publication No.: US 2006/0205358 A1) in view of Alastalo (United States Patent No.: 6,721,302 B1), and further in view of Takano (United States Patent Application Publication No.: US 2003/0148780 A1).

Consider claims 1, 3, 5, and 7, Itoh shows and discloses a packet communications system for carrying out packet communications between a base station 2 and a mobile station 1, located in an area controlled by the base station, the system comprising a channel quality detecting unit configured to detect a channel quality between the base station and the mobile station (Receiving Quality Judging Unit 21 in figure 3 and paragraph [0141], and Receiving Quality Estimation Unit 50 in figure 8 and paragraph [0153]); a buffered data monitoring unit configured to monitor the amount of data buffered in a transmission buffer of the base station (control unit 86 in figure 14 and paragraphs [0226] and [0228]); and a modulation scheme determination unit configured to determine a modulation scheme for the packet communications based on the channel quality and the buffered data amount in the transmission buffer (control unit 22 in figure 3 and paragraph [0125]).

However Itoh does not explicitly disclose that the modulation scheme

determination unit is configured to determine the modulation scheme by selecting a modulation scheme that uses a smallest available transmission block size that is greater than or equal to the amount of data buffered.

In the same field of endeavor Alastalo discloses that the modulation scheme determination unit is configured to determine the modulation scheme by selecting a modulation scheme that uses a smallest available transmission block size that is greater than or equal to the amount of data buffered (by changing the modulation scheme the length of the packet is also changed with the objective of minimizing the amount of padding which corresponds to the smallest available transmission block that can carry the data to be transmitted) (column 3, lines 38-43).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to select the modulation scheme as disclosed by Alastalo in the system of Itoh in order to improve throughput.

Nonetheless the combination of Itoh and Alastalo does not explicitly disclose establishing a list of available modulation schemes, each modulation scheme having an available transmission block size.

In the same field of endeavor, Takano teaches establishing a list of available modulation schemes, each modulation scheme having an available transmission block size (figure 10 and paragraph [0005]).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to establishing a list of available modulation schemes, each modulation scheme having an available transmission block size as taught by

Takano in the system of Itoh as modified by Alastalo in order to use the optimum transmission power.

Consider claims 2, 4, and 6 and as applied to claims 1, 3, and 5 respectively above, Itoh as modified by Alastalo, and further modified by Takano discloses that the modulation scheme determination unit is configured to determine the modulation scheme that satisfies a prescribed communication condition (channel quality)(Itoh, paragraph [108]), and that makes padding, which is added to the data buffered in the transmission buffer when the buffered data amount is less than a transmission unit size, become the minimum, based on the channel quality and the buffered data amount(by changing the modulation scheme the length of the packet is also changed with the objective of minimizing the amount of padding) (Alastalo, column 3, lines 38-43).

Response to Arguments

6. Applicant's arguments with respect to claims 1, 3, 5, and 7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building

401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERMAN VIANA DI PRISCO whose telephone number is (571)270-1781. The examiner can normally be reached on Monday through Friday 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/German Viana Di Prisco/
Examiner, Art Unit 2617

/Rafael Pérez-Gutiérrez/
Supervisory Patent Examiner, Art Unit 2617

October 15, 2008